



Fact Sheets and Information Papers

Lithium Sulfur Dioxide Batteries

August 2004

1. BACKGROUND. There are two types of lithium sulfur dioxide batteries: batteries with a complete discharge device (CDD) and batteries without CDD.

a. HEALTH and SAFETY.

WARNING: Due to severe health concerns, DEADLINE the following non-rechargeable, lithium sulfur dioxide batteries immediately:

(1) BA-5800/U, NSN 6665-99-760-9742, manufactured by Ballard, under contract DAAB07-90-C-C024 [Do NOT activate the CDD of this battery]

(2) BA-5800/U, NSN 6665-99-760-9742, manufactured by Crompton Eternacell LTD, under contract DAAB07-91-C-R014 [Does not have a CDD]

(3) BA-5590/U, NSN 6135-01-036-3495, manufactured by Saft America, Inc., under contract DAAB07-88-C-C045 [Activate the CDD in accordance with the manufacturer instructions and further guidance provided by CECOM, <http://www.monmouth.army.mil/cecom/safety>]

(4) BA-5590/U, NSN 6135-01-036-3495, manufactured by Saft America, Inc., under contract DAAB07-90-C-C020 [Activate the CDD in accordance with the manufacturer instructions and further guidance provided by CECOM, <http://www.monmouth.army.mil/cecom/safety>]

(5) BA-5590/U, NSN 6135-01-435-3097, manufactured by Saft America, Inc., under contract DAAB07-90-C-C020 and preconditioned. [Activate the CDD in accordance with the manufacturer instructions and further guidance provided by CECOM, <http://www.monmouth.army.mil/cecom/safety>]

The batteries contain pressurized SO₂ gas, so do not abuse or allow to rupture.

b. If you hear a hissing sound or smell an irritating gas, turn off the equipment and leave the area until any signs of danger have passed.

c. Do not use halon fire extinguishers to combat fires involving lithium sulfur dioxide batteries. Use an approved Class-D fire extinguisher such as Lith-X.

d. If the battery compartment becomes hot to the touch, turn off equipment and cool battery for at least 1 hour before removing.

e. Never test the battery with conventional test sets not specifically designated to test lithium sulfur dioxide batteries.

f. Only authorized personnel may activate the battery CDD.

WARNING: Do not activate the CDD of the lithium-sulfur dioxide batteries: BA-5600/U, NSN 6135-01-168-2944, manufactured by Ballard, under contracts DAAB07-90-C-C028 and DAAB07-90-D-C045

g. Do not use any battery past its expiration date.

h. When replacing batteries, replace all of the batteries at the same time with the same contract number, lot, and date code. Never mix partially expended batteries with new batteries. This especially applies to the following batteries as equipment damage has occurred: BA-5590/U, NSN 6135-01-036-3495, manufactured by Power Conversion Inc., under contracts DAAB07-95-C-G322 and DAAB07-90-D-C040.

2. STORAGE. Batteries should be stored in a noncombustible building or a structure with sprinklers, if available. Other hazardous materials should be appropriately segregated from the batteries. Batteries stored for disposal should be kept cool, dry, away from open flame, heat, combustibles, at least 2 inches from another battery, and in well ventilated areas.

3. DISPOSAL There are two types of classification for the disposal of lithium batteries: non-hazardous solid waste (NHSW) or hazardous waste (HW). Batteries are classified as a NHSW if they are discharged properly via the CDD and stored 5 days prior to disposal.* A battery with a CDD can be identified by the presence of a removable label providing discharge instructions over the switch. Damaged batteries, batteries that vent during discharge, and batteries without a CDD are classified as HW for ignitable (D001) and reactive (D003) and must be disposed of according to federal, state, and local regulations. The DRMO generally accepts accountability provided that the batteries are properly identified, packaged, marked, and turned in.

*Also applicable in states (AK, CA, MN, RI, and WA) using bioassay characterization of HW.

4. INFORMATION. Consult TB43-0134, your installation Environmental Office, and state and local regulations for more information. Action officer is Jennifer Keetley, Hazardous and Medical Waste Program, DSN 584-3651, or (410) 436-3651.

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